

YOUR NATURAL EDGE

YOU CAN BRING *Nature* BACK TO YOUR LAKE

Functions of a Healthy Shoreline

Filtering Runoff for Clean Water

Shoreline vegetation helps slow down the flow of surface runoff. Their roots absorb surface water, pulling it into the ground. Underground, sediments, nutrients and pollutants become trapped in the soil and are absorbed by the plant roots before these harmful substances can enter underground aquifers or surrounding water bodies, keeping the water clean, fresh and pollutant free!

Controlling Erosion for Decreased Sedimentation

Trees, shrubs, grasses, wildflowers and ground cover all have root systems that hold layers of soil in place, keeping the shoreline together, preventing erosion and stabilizing banks. Leafy foliage reduces the impact of rain water, preventing it from striking the soil and washing it away. Plants that grow directly along the shoreline absorb wave energy that would otherwise erode banks, reducing erosion that would slowly wash the shoreline away.

Managing Stormwater for Controlling Floods

Flooding occurs when water entering a natural watercourse exceeds its capacity, causing it to overflow onto lands that are usually dry. Flooding can be caused by heavy rains, ruptured dams or quickly melting snow and ice. Healthy shorelines help manage these fluctuations because the vegetation slows the flow of runoff, allowing it to be absorbed into the ground instead of running directly into the lake, river or stream.

Providing Habitat for Plants and Animals

Throughout various life cycles, up to 90 percent of fish and wildlife species, from mammals and birds to aquatic macro invertebrates, depend on a healthy shoreline for sources of food, shelter, migration, breeding areas and rearing young. Shoreline vegetation provides a corridor for wildlife to use when transitioning from land to water. Fallen vegetation that settles in the water provides unique habitat for aquatic life.

Cooling Temperatures and Providing Shade

Shoreline vegetation is a source of shade for land and water wildlife. It provides much-needed relief from hot summer temperatures and sunshine.



Healthy Shorelines = Biodiversity



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|---------------------|---------------------------|---------------------|--------------------------|-------------------------|
| 1 black willow | 7 wild celery | 13 logperch | 19 freshwater snails | 25 red-winged blackbird |
| 2 Canada blue joint | 8 white water lily | 14 white sucker | 20 native crayfish | 26 mallards |
| 3 soft stemmed rush | 9 banded killifish | 15 yellow perch | 21 swallowtail butterfly | 27 green frog |
| 4 yellow water lily | 10 common shiner | 16 muskie | 22 dragonfly | 28 leopard frog |
| 5 Canada water weed | 11 brassy minnow | 17 caddisfly larvae | 23 freshwater mussels | 29 snapping turtle |
| 6 coontail | 12 northern redbelly dace | 18 dragonfly nymph | 24 great blue heron | 30 painted turtle |

Healthy Shorelines Have Many Layers of Plants

Littoral Zone

The littoral zone is the area of the shoreline that begins at the water's edge and ends where sunlight can no longer reach the water bed. Submergent, emergent and floating plants that can survive being rooted in water will grow in this area of the shoreline. These plants will absorb wave energy before the wave can strike the shore, reducing undercut erosion.

Riparian Zone

The riparian zone starts at the water's edge and stretches 15 metres inland. The long roots of trees and shrubs in this area help hold soils in place beneath ground and filter out any impurities, while the crown cover provides shelter and the berries and seeds provide sources of food for wildlife. Grasses, reeds, sedges, wildflowers and other herbaceous plants can attract wildlife with scents, pollens and fruits.

Upland Zone

A layered forest of deciduous and coniferous trees and shrubs, grasses and herbaceous plants connects species from the forest floor to the tree top canopy and from the riparian zone to the uplands beyond.

You Can Restore Your Shoreline Too

No Mow Zones

The first step to naturalizing your shoreline is to do nothing at all! By simply not mowing your lawn area closest to shore, you will allow nearby native vegetation to seed and re-establish.

Plant Native Shrubs and Trees

The roots of shrubs and trees will help hold soils in place far better than the roots of lawn grass. You can select appropriate shrubs and trees by identifying the soil, light and moisture conditions of your shoreline.

Keeping it Natural

The more natural your shoreline is, the better it is for the environment. By allowing fallen trees and branches to stay on your property, either on land or in the water, where safe, you can contribute to essential wildlife habitat needed for the survival of our lakes and rivers for generations to come.